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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/597,110	05/10/2007	Dierk Schoen	WEBE-0020	6339
23550 7590 05/22/2008 HOFFMAN WARNICK LLC 75 STATE STREET 14TH FLOOR ALBANY, NY 12207				
EXAMINER ANGWIN, DAVID PATRICK				
ART UNIT 3729		PAPER NUMBER		
NOTIFICATION DATE 05/22/2008		DELIVERY MODE ELECTRONIC		

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

Notice of the Office communication was sent electronically on above-indicated "Notification Date" to the following e-mail address(es):

PTOCommunications@hwdpatents.com

# Office Action Summary

**Application No.**

10/597,110

**Applicant(s)**

SCHOEN, DIERK

**Examiner**

DAVID P. ANGIN

**Art Unit**

3729

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --  
**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 10 May 2007.  
2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.  
3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 18-42 is/are pending in the application.  
4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.  
5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.  
6) ☒ Claim(s) 18-42 is/are rejected.  
7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.  
8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☐ The specification is objected to by the Examiner.  
10) ☒ The drawing(s) filed on 10 May 2007 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).  
11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☒ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- 1) ☒ Notice of References Cited (PTO-892)  
2) ☐ Notice of Draftperson's Patent Drawing Review (PTO-948)  
3) ☒ Information Disclosure Statement(s) (PTO-8508)  
Paper No(s)/Mail Date 7/12/06 and 2/8/07.  
4) ☐ Interview Summary (PTO-413)  
Paper No(s)/Mail Date \_\_\_\_\_  
5) ☐ Notice of Informal Patent Application  
6) ☐ Other: \_\_\_\_\_

## DETAILED ACTION

### **Claim Rejections - 35 USC § 112**

The following is a quotation of the second paragraph of 35 U.S.C. §112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

**Claims 18-42** are rejected under 35 U.S.C. § 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention. MPEP 2173.01-2173.02. Specifically:

- a. **Claims 18-42** recite the following phrases that are vague, indefinite, and confusing:
  - Claims 18 and 42 do not include a transition phrase such as "comprising," "consisting of," or any other recognizable transition phrase. As a result, the difference between the preamble and the body of the claim cannot be clearly ascertained.
  - "is inserted and fixed" (claims 18 and 42, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
  - "is brought" (claims 18 and 42, line 5) – The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
  - "is fixed" (claims 18 and 42, line 10) – The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
  - "is at least partly formed" (claims 18 and 42, line 11) – The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise

because the passive voice does not fully explain how to perform the action.

- "is inserted or engaged" (claims 18 and 42, line 12) – The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "formed in a tool" (claim 18, line 6) – It is unclear as to whether the applicant intends a "forming" step, even though the applicant does not specify a forming step in the claim.
- "positive engagement" (claim 18, line 8) - It is unclear as to the meaning of the phrase "positive engagement." The examiner contends that any type of engagement is "positive engagement."
- "is at least partly formed" (claim 19, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 20, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 20, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 21, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 22, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 23, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the

step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.

- "is fixed" (claim 24, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 25, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is sucked onto" (claim 26, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is removed" (claim 28, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 29, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "one tool" (claim 31, line 3) – It is unclear as to whether the applicant is referencing the "tool" recited in claim 18 because this limitation lacks proper antecedent basis.
- "is fixed" (claim 32, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 33, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "are inserted and fixed" (claim 34, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive

voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.

- "an angled bush" (claim 34, line 3) – It is unclear as to whether the applicant is referencing the "angled bush" recited in claim 18 because this limitation lacks proper antecedent basis.
- "is positively pressed" (claim 35, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is fixed" (claim 36, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "is soldered" (claim 37, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "a printed circuit board" (claim 37, line 3) – It is unclear as to whether the applicant is referencing the same printed circuit board as recited in claim 36 because this limitation lacks proper antecedent basis.
- "is soldered" (claim 38, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "a shielding can" (claim 38, line 3) – It is unclear as to whether the applicant is referencing the same shielding can as recited in claim 35 because this limitation lacks proper antecedent basis.
- "is soldered" (claim 39, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "a shielding can" (claim 39, line 3) – It is unclear whether the applicant is referencing the same shielding can as recited in claim 35 and 36 because this limitation lacks proper antecedent basis.

- "is soldered" (claim 40, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.
- "the shielding can" (claim 40, line 3) – It is unclear whether the applicant is referencing the shielding can recited in claim 35 or the shielding can recited in claim 38 because the limitation does not provide enough details.
- "is brought" (claim 41, line 3) - The claim does not clearly recite an apparent method step, but merely uses passive voice to explain the step. This is unclear and imprecise because the passive voice does not fully explain how to perform the action.

**Claim Rejections – 35 USC § 102**

The following are quotations of 35 U.S.C. § 102 that form the basis for all anticipation rejections set forth in this Office action:

- (b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

**Claims 18-30, 32-34 and 42**, as best understood, are rejected under 35 U.S.C. § 102(b) as being anticipated by *Walter et al* (US Patent Publication 2002/0172000).

- a. *Walter et al* discloses the following in his reference:
  - i. a transducer element (Fig. 3, item 7) is inserted and fixed in an angled bush (Fig. 3, item 6; 17:1-3);
  - ii. the transducer element (Fig. 3, item 7) is brought into aligned engagement with a transducer receptacle (Fig. 1, *hole on item 6 that houses item 7*) formed in a tool (Fig. 1, item 1);

- iii. the bush (Fig. 1, item 6) is brought into aligned at least partial positive engagement with a bush receptacle (Fig. 1, *hole in item 1 that receives item 6*) appropriately constructed in the tool; and
- iv. the transducer element is fixed in the bush and the transducer receptacle is at least partly formed by a transducer centering device (Figs. 1 and 3, *portion of item 6 that holds transducer element in place*), which is inserted or engaged in a tool body of the tool;
- v. the bush receptacle is at least partly formed by a bush centering device, which is inserted or engaged in the tool body (Fig. 1, *portion of item 1 that accepts item 4*);
- vi. the transducer element is fixed by at least one of vacuum, adhesives, adhesive tapes, and magnets (Fig. 1, item 5; 29:1-13);
- vii. the transducer centering device is fixed relative to the tool body (Fig. 1, 29:1-13; 14:14-20; *item 6 appears to be fixed relative to the tool body*);
- viii. the transducer centering device is fixed by at least one of adhesives, adhesive tapes, vacuum, and magnets (Fig. 1; 29:1-13; 14:14-20);
- ix. the bush centering device is fixed by at least one of adhesives, adhesive tapes, vacuum, and magnets (Fig. 1, 29:1-13; 14:14-20; 18:1-3; *the examiner notes that the bush centering device is clearly adhered to the tool*);
- x. the transducer element is sucked onto the tool by means of at least one vacuum duct in tool body (18:1-3);
- xi. a pressure compensation takes place on radially outer areas of a sucked on transducer element by means of compensating ducts in tool body (*item 8 changes flow of vacuum pull*);



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- xii. the transducer centering device is removed prior to fixing transducer element in bush (*item 7 appears to be completely removed from item 6 before item 7 is inserted into item 6*);
- xiii. the transducer element is fixed in the bush by at least partly filling the gaps with at least one of foam and molding material (14:14-20);
- xiv. use is made of a tool with steps, which as a stop engages with at least one of a front end and a setback shoulder of the bush (Fig. 1; *the examiner notes that the bush is fit into place*);
- xv. the bush is fixed relative to the tool via a holder (Figs. 1-2, items 1 and 4); and
- xvi. several transducer elements are inserted and fixed in an angled bush (Figs. 1-3; 30:1-10).

**Claim Rejections – 35 USC § 103**

The following is a quotation of 35 U.S.C. § 103(a) that forms the basis for all obviousness rejections set forth in this Office action:

- (a) A patent may not be obtained though the invention is not identically taught or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

The factual inquiries set forth in *Graham v. John Deere Co.*, 383 U.S. 1, 148 USPQ 459 (1966), that are applied for establishing a background for determining obviousness under 35 U.S.C. § 103(a) are summarized as follows:

1. Determining the scope and contents of the prior art.
2. Ascertaining the differences between the prior art and the claims at issue.
3. Resolving the level of ordinary skill in the pertinent art.
4. Considering objective evidence present in the application indicating obviousness or nonobviousness.

**Claim 31**, as best understood, is rejected under 35 U.S.C. 103(a) as being unpatentable over *Walter et al* (US Patent Publication 2002/0172000).

- a. *Walter et al* does not expressly disclose in his reference several transducer units are manufactured in parallel using one tool with a plurality of transducer receptacles and bush receptacles.
  - i. However, *Walter et al* further discloses in his reference manufacturing a transducer, bush, and tool separately (Figs. 1-3; 34:11-13). The advantage of manufacturing the transducer, bush, and tool separately is to test each part individually before sealing them together. Therefore, it would have been obvious to manufacture several transducer units in parallel using one tool with a plurality of transducer receptacles and bush receptacles to test each part individually before sealing them together.
  - ii. In addition, this limitation simply amounts to making this existing structure multiple times. Specifically, the applicant now describes multiple transducer units, transducer receptacles, and bush receptacles, when in the original claim he only described them in the singular. As such, the examiner considers this limitation to be a duplication of parts. Therefore, it is the examiner's position that a duplication of parts would have been obvious to one of ordinary skill in the art, since it has been held that duplication of the essential working parts of a device involves only routine skill in the art. MPEP 2144.04.

**Claim 35-41**, as best understood, are rejected under 35 U.S.C. 103(a) as being unpatentable over *Walter et al* (US Patent Publication 2002/0172000) in view of *Schindel* (US Patent 7,275,298).

- a. *Walter et al* does not expressly disclose in his reference that a shielding can is positively pressed into the bush, the shielding can is fixed to a printed circuit board, the shielding can is soldered to a printed circuit

board, the shielding can is fixed to a printed circuit board, and the transducer unit is soldered to the shielding can by means of at least one clip provided thereon.

- i. However, *Schindel* teaches in his reference a shielding can is positively pressed into the bush, the shielding can is fixed to a printed circuit board, the shielding can is soldered to a printed circuit board, the shielding can is fixed to a printed circuit board, the transducer unit is soldered to the shielding can by means of at least one clip provided thereon, and the bush is brought into a positive, a non-positive, or a locking engagement with a printed circuit board (Figs. 1-3, item 22; 4:27-43; 10:28-11:31; *the examiner notes the PCB itself contains shielding*). The advantage of utilizing the shielding structure above is to prevent electromagnetic interference of the sensor elements. Therefore, it would have been obvious to utilize the shielding structure above to prevent electromagnetic interference of the sensor elements.

### **Conclusion**

The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to David P. Angwin, whose telephone number is 571-270-3735. The examiner can normally be reached on 7:30 AM - 5 PM (M-F).

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Peter Vo, can be reached on 571-272-4690. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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